

**AMENDMENTS TO THE SPECIFICATION**

Please replace the following paragraphs of the specification. Applicants include herewith an Attachment for Specification Amendments showing a marked up version of each replacement paragraphs.

***Please replace paragraph [0049] with the following paragraph:***

[0049] Associated with the transducer array 100 there are individual electrodes 4a-4c which, in accordance with the intended purpose, realize a reference electrode REF 4b, a counter electrode CE 4c and at least one measuring or working electrode WE 4a. These electrodes are connected to the potentiostat 5 as a three-electrode arrangement. The signal of the potentiostat 5 is linked up to a signal-processing unit, which is not shown in detail in Figure 9, with which evaluation takes place in consideration of the above statements regarding measuring methodology and accuracy. Generally, the signal pattern shown in Figure 9 as [[I<sub>out</sub>]] U<sub>out</sub> results for the evaluation.

***Please replace paragraph [0051] with the following paragraph:***

[0051] The transducer array 100 is reproduced in Figures 10/11 as part of the measuring device that is planar and flexible and in particular can be produced inexpensively as well. What is important in this connection is that now it is possible to carry out measurements for pulsed redox-cycling with one simplified transducer array 100. Figures 10 and 11 show the upper 12<sub>i</sub> and lower side 11<sub>i</sub> of the transducer array 100 - consisting of a metal substrate 1 and an insulator layer 2. Circular depressions 3<sub>i</sub> that are referred to as cavities are shown on the upper side, for example. The cavities 3<sub>i</sub> develop as a result of the structuring of the insulator 2. The

upper side 12<sub>i</sub> of the metal substrate 1 lies open at the base of the depressions 3<sub>i</sub> and forms a measuring point, if an analytical unit is applied.

***Please replace paragraph [0052] with the following paragraph:***

**[0052]** The representation of the rear side shows by way of lines a structuring and thus a sectioning of the metal substrate 1 into portions that are isolated from each other. Each metal island corresponds with a depression 3<sub>i</sub> on the front side. The possible contact points for a so-called needle card for simplified electrical contacting of the metal surfaces are indicated by dots. What is important in this connection is that a plurality of metal islands, preferably three, with an analytical unit define a sensor, and with the associated electrodes 15, that is, a measuring electrode WE 4a, a counter electrode CE 4c and a reference electrode REF 4b, are suitable for carrying out electrochemical measurements.